

## PATENT COOPERATION TREATY

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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CIO147PCT	<b>FOR FURTHER ACTION</b>	See Form PCT/PEA/416
International application No. PCT/EP2004/014615	International filing date (day/month/year) 22.12.2004	Priority date (day/month/year) 23.12.2003
International Patent Classification (IPC) or national classification and IPC B65B9/20		
Applicant CFS WEERT B.V. et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 1 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand  10.06.2005	Date of completion of this report  16.02.2006	
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Johne, O  Telephone No. +49 89 2399-7232	



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/014615

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-6 as originally filed

**Claims, Numbers**

1-8 filed with telefax on 01.02.2006

**Drawings, Sheets**

1/3-3/3 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-8
	No: Claims	
Inventive step (IS)	Yes: Claims	1-8
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

**Re Item V**

1. Reference is made to the following documents:

D1: DE-A-1461916

D2: US-A-4034537

D3: WO-A-00/07903

2. The document D2 is regarded as being the closest prior art to the subject-matter of claim 1, and shows (the references in parentheses applying to this document) an apparatus to bend a first and a second cross seal of a bag, made of a flexible packaging material, towards the sidewall with:
- first means to orient the first cross seal towards the sidewall of the bag;
  - turning means to fix and turn the bag upside down;
  - the turning means comprising a plane onto which the bag is dropped before it is fixed;
  - second means to orient the second cross seal towards the sidewall of the bag.
3. The subject-matter of claim 1 differs from this known apparatus in that the orientation of the first cross seal is carried out before the bag is transferred to the turning means and the orientation of the second cross seal is carried out after the bag has been turned upside down.
4. The subject-matter of claim 1 is therefore new (Article 33(2) PCT).
5. The problem to be solved by the present invention may be regarded as to provide a compact apparatus for producing bags with cross seals bent towards the sidewall of the bag.
6. The solution according to the combination of features of claim 1 is not known from, nor suggested, by the available prior art.
7. The subject-matter of independent claim 5 relates to a method of producing bags and merely repeats the apparatus features of claim 4 in terms of method features.

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(SEPARATE SHEET)**

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Therefore the same argumentation concerning novelty and inventive step can be applied to claim 5.

Consequently, claim 5 also meets the requirements of the PCT with respect to novelty and inventive step.

8. Claims 1 to 4 are dependent on claim 1, claims 6 to 8 are dependent on claim 5 and as such the dependent claims also meet the requirements of the PCT with respect to novelty and inventive step.

9. Further remarks:

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.

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**Amended Claims:**

1. Apparatus to bend a first and a second cross seal (1, 2) of a bag (3), made of a flexible packaging material, towards the sidewall (5) with:
  - first means (4) to orient the first cross seal (2) towards the sidewall (5) of the bag, before it is transferred to the turning means (7)
  - turning means (7) to fix and turn the bag upside down,
  - the turning means (7) comprising a plane (8) onto which the bag is dropped before it is fixed,
  - second means (6) to orient the second cross seal (1) towards the sidewall (5) of the bag after it has been turned upside down.
2. Apparatus according to claim 1, characterized in that the turning means rotate by 180° back and forth.
3. Apparatus according to claim 1 or 2, characterized in that the means (4, 6) are gas ejection means or mechanical means, preferably a plate.
4. Packaging machine (1), especially vertical-type packaging machine, for producing tubular bags (3) from a foil (9) web, characterized in that it comprises an apparatus according to one of the claims 1 – 3.
5. Method to produce a bag (3) made of a flexible packaging material and filled with a packaging item, characterized in that it is turned while it is produced by a packaging machine according to claim 4.
6. Method according to claim 5, characterized in that two cross seals (1, 2) of the bag are oriented towards the sidewall (5) of the bag.
7. Method according to claim 6, characterized in that the shape of the bag is stabilized by the packaging item.
8. Method according to claim 6 or 7, characterized in that the cross seals (1, 2) are bent towards the sidewall (5) of the bag (3) by the weight of the packaging item.